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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/735,074	12/11/2003	David A. Salee	71742 CCD	1260

7590 05/03/2005

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EXAMINER

LIN. ING HOUR

ART UNIT	PAPER NUMBER
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1725

DATE MAILED: 05/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/735,074

Applicant(s)

SALEE ET AL.

Examiner

Ing-Hour Lin

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 December 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 5/04 & 4/05.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 1, line 4 from the bottom, "casing" is unclear. Is it a typo of "casting"?

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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5. Claims 1-3, 5-7 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blessinger et al in view of Stauffer.

Blessinger et al (col. 2, lines 58+) teach apparatus and method of horizontal casting installation for continuously casting metal ingot, comprising feed trough 60 for feeding molten metal to each mold inlet of each mold 14; a connecting trough (branch trough 64) having a shutoff gate (plug 76) and branch drain plug 67; water supply line 22; aligned conveying device (guided rail assembly 86) provided to support and withdraw solidified ingot emerging from the mold; starter block (starting plug 84).

Blessinger et al fail to teach the use of a drop-down connecting trough. However, Stauffer (col. 3, lines 15+) teach the use of a drop-down connecting trough (transfer trough 5) for the purpose of effectively transferring molten metal from a holding furnace to a casting station and draining molten metal in the trough when breakout occurs. It would have been obvious to one having ordinary skill in the art to provide Blessinger et al the use of a drop-down connecting trough (transfer trough 5) as taught by Stauffer in order to effectively transfer and drain molten metal in the trough in stopping casting.

6. Claims 4 and 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blessinger et al in view of Stauffer and further in view of either Suzuki et al or Follrath et al.

Blessinger et al in view of Stauffer fails to teach the use of a gas supply line in claims 4 and 15 and accelerating the rate of extracting or cutting ingot in claim 14. However, Suzuki et al (col. 1, lines 72+) teach the use of a gas supply line 5d for the purpose of controlling cooling and preventing casting breakout. Follrath et al (col. 8, lines 11) teach the use of accelerating the rate of extracting or cutting ingot when bleed-out occurred for the purpose of enhancing safety

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and saving the casting product. It would have been obvious to one having ordinary skill in the art to provide Blessinger et al in view of Stauffer the use a gas supply line and accelerating the rate of extracting or cutting ingot as taught respectively by Suzuki et al and Follrath et al in order to control and cooling and prevent breaking out of casting and enhance safety and save the casting product.

7. Claims 8-9 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blessinger et al in view of Stauffer and further in view of Kuttner.

Blessinger et al in view of Stauffer fails to teach the use of a starter block having a threaded recess and sealing O-ring. However, Kuttner (col. 1, lines 63+) teaches the use of starter bar head having a threaded recess (T-shaped groove 4) and sealing O-ring (seal 6 in a peripheral recess 5) for the purpose of improving sealing for the molten metal in the startup of casting. It would have been obvious to one having ordinary skill in the art to provide Blessinger et al in view of Stauffer the use of a starter block having a threaded recess and sealing O-ring as taught by Kuttner in order to improve sealing for the molten metal in the startup of casting.

8. Claims 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blessinger et al in view of Stauffer and further in view of Kuttner and Evans.

Blessinger et al in view of Stauffer and further in view of Kuttner fails to teach the use of air vent. However, Evans (col. 4, lines 37+) teaches the use of air vent (ventilation opening 96) and porous plug (filter package or filter means 100) for starter 90 for the purpose of effectively venting air through the recess of the starter head. It would have been obvious to one having ordinary skill in the art to provide Blessinger et al in view of Stauffer and further in view

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of Kuttner the use of air vent (ventilation opening 96) and porous plug (filter package or filter means 100) for starter 90 as taught by Evans in order to effectively vent air through the recess of the starter head.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ing-Hour Lin whose telephone number is (571) 272-1180. The examiner can normally be reached on M-F (8:00-5:30) Second Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Dunn can be reached on (571) 272-1171. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

q. fl d.

I.-H. Lin

4-27-05

KEVIN KERNS
PRIMARY EXAMINER

Kevin Kerns 5/2/05